

课程开篇

rhci 讲师
下载官方的qcow2文件--kvm 虚拟机--vmware虚拟机
国产linux 麒麟

0. RHEL8.2课程环境介绍

环境
vtx 2000年之后都有了
花钱买时间 (效率问题)
macos fushion
vmx是虚拟机配置文件
2核心8g 嵌套虚拟化

虚拟机快照

线下环境

Machine	VM		必须启动
VMware	foundation	平台	*
KVM	classroom	dns, rc.local...	*
KVM	bastion	Gateway system(router)	*
KVM	utility	podman Server	
KVM	workstation	Client - GUI	
KVM	servera	Client - CLI	*
KVM	server{b-e}	Client - CLI	

linux 和 windows做对比进行学习

- 1

根据物理机内存大小，修改虚拟机内存大小
- 2

快照
- 3

开机

技巧

技巧

STEP		Comment
1	word	单词，记头 2-3 个字母
2	Tab	列出（两下）、补全（一下）
3	man	查帮助
4	echo \$?	==0 (TRUE) , find 命令除外

虚拟机控制命令
终端：
rht 红帽培训redhat-training
rht-clearcourse 清除环境

Win / Terminal

Win - [↑]

Ctrl - + | Ctrl - Shift - =

[foundation]

```
1 $ rht-clearcourse 0
2 $ ls /content/manifests/
3 RH124-RHEL8.2-1.r2020100106-ILT+RAV-7-en_US.icmf_quiesced
4 RH294-RHEL8.0-1.r2019062609-ILT+RAV-7-en_US.icmf
5 RH134-RHEL8.2-1.r2020100106-ILT+RAV-7-en_US.icmf_quiesced
6 RHCIfoundation-RHEL80-7.r2020092412-ILT-7-en_US.icmf
7
8 $ rht-setcourse rh124
```

```
1 $ rht-vmctl status all
2 $ rht-vmctl start classroom
3 $ rht-vmctl status classroom
4 $ rht-vmview view classroom
5 $ rht-vmctl reset classroom
```

```
1 $ rht-vmctl start classroom
2 $ rht-vmctl start bastion
3 $ rht-vmctl start servera
```

```
5 $ rht-vmctl reset classroom

1 $ rht-vmctl start classroom
2 $ rht-vmctl start bastion
3 $ rht-vmctl start servera
4
5 - local console
6 $ rht-vmview view servera
7
8 $ ping classroom
9 <Ctrl+C>
10 $ ping -c 4 bastion
11 $ ping -c 4 servera
12 - remote console
13 $ ssh root@servera
14
15 - console
16 $ virt-manager
17 $ su -
18 Asimov
19 # virsh console servera
20 <Enter>
21 root%redhat
22 exit
23 <Ctrl-J>
```

ping 通 代表机器已经启动完成

远程控制台 本地控制台

secure shell

作教材上的实验必须切换环境

cat /etc/rht 查看当前环境

defined状态是是虚拟机存在当时还没开机

```
INFO Activating on f0: RH124-RHEL8.2-1.r2020100106-ILT+RAV-7-en_US.icn
scd
INFO Mounting /content/rhel8.2/x86_64/isos/rhel-8.2-x86_64-dvd.iso to
nt/rhel8.2/x86_64/dvd
INFO Mounting /content/rhel8.2/x86_64/extras/rhel-8.2-x86_64-additi
0200813.iso to /content/rhel8.2/x86_64/rhel8-additional
INFO Mounting /content/rhel8.2/x86_64/extras/rhcsa-practice-20190306
to /content/rhel8.2/x86_64/rhcsa-practice
INFO Installing /content/ucf/Packages/foundation0-rhcsa-8.2-1.r20201001
eaab22d.noarch.rpm
INFO Installing /content/ucf/Packages/redhat-training-slides-RH124-RHEL
n-1-20200928.noarch.rpm
INFO Renaming manifest RH124-RHEL8.2-1.r2020100106-ILT+RAV-7-en_US.icmf_
scd
INFO f0activate completed.
/content/rhe8.2/x86_64/vms /home/kiosk
```

这步骤卡是正常，跟磁盘的io有关

gui virt-manager

virsh console servera 必须是root用户

cli

```
4
5 - local console (rht 提供)
6 $ rht-vmview view servera
7
8 $ ping classroom
9 <Ctrl+C>
10 $ ping -c 4 bastion
11 $ ping -c 4 servera
12 - remote console
13 $ ssh root@servera
14
15 - console
16 $ virt-manager #GUI
17 $ su -
18 Asimov
19 # virsh console servera #CLI
20 <Enter>
21 root%redhat
22 exit
23 <Ctrl-]>
```

密码: **Asimov**

rht-vmview view servera查看启动到哪一步了

物理机ssh虚拟机方式: ssh kiosk@虚拟机ip

NAT方式 vmnet8

nmcli connection show

查看网卡名

```
[kiosk@foundation0 ~]$ nmcli connection show
NAME                UUID                                  TYPE      DEVICE
br1                  15f89753-87a4-4133-9cd7-06a6ac22ebcf bridge    br1
Bridge br0           d2d68553-f97e-7549-7a26-b34a26f29318 bridge    br0
privbr0              a72a1a5e-e3ff-47ea-899d-e7c847f07522 bridge    privbr0
System ens160        46d13a12-9ca5-4887-b59a-1334bb23de06 ethernet  ens160
virbr0               2dd34196-31a7-436b-b5b0-9762337ba296 bridge    virbr0
virbr1               7a0a993f-f9a8-4c16-a0b5-b90ed4b0f8d8 bridge    virbr1
vnet0                 b58ff40c-e5a7-4491-9e00-b56069264e4b tun       vnet0
vnet1                 12cfa2fa-5c8c-4f14-b8df-e13fb102b8a5 tun       vnet1
vnet2                 5875f302-9ffa-42e8-913f-960ab9537025 tun       vnet2
vnet3                 1800e7f9-4f39-40e3-a913-25cb5b44c2eb tun       vnet3
vnet4                 2bald7e9-d68d-444c-836f-0f34c29dd35c tun       vnet4
ens192               64d0a510-280b-4120-8ad6-56bbd8f15659 ethernet  --
[kiosk@foundation0 ~]$ nmcli connection up ens192
```

hostonly方式 就是使用 vmnet1 第一次启动选择已移动 会修改mac地址

ID		物理机	COMMENT
1	Bridge	真实网卡	
2	NAT	VMnet8	VMware 连接网络适配器 \$ nmcli connection up ens192 \$ ip a s ens192
3	Host-only	VMnet1 == 172.25.254.1/24	第一次打开虚拟机时，选择的『已移动』

VM	root	user
Foundation	Asimov	kiosk%redhat
classroom	Asimov	instructor%Asimov
bastion	redhat	student%student
workstation	redhat	student%student
server{a-e}	redhat	student%student

查看地址

ip a s ens192

reset虚拟机快照恢复

view是查看虚拟机本地控制台

ppt

education文件夹里

cat /etc/resolv.conf

```
[kiosk@foundation0 ~]$ cat /etc/resolv.conf
# Generated by NetworkManager
search localdomain ilt.example.com example.com
nameserver 192.168.121.2
nameserver 172.25.254.250
[kiosk@foundation0 ~]$ nmcli connection down
apath      ens192      id            System\ ens160
br1        filename    path          uuid
Bridge\ br0 help        privbr0       virbr0
[kiosk@foundation0 ~]$ nmcli connection down ens192
Connection 'ens192' deactivation failed: Not authorized to deactivate
[kiosk@foundation0 ~]$ cat /etc/resolv.conf
# Generated by NetworkManager
search localdomain ilt.example.com example.com
nameserver 192.168.121.2
nameserver 172.25.254.250
[kiosk@foundation0 ~]$ nmcli connection up br0
Error: unknown connection 'br0'.
[kiosk@foundation0 ~]$ su -
Password:
Last login: Sat Jan 23 10:32:47 GMT 2021 on pts/0
[root@foundation0 ~]# system
```

排错指导